

What is claimed is:

[c1] 1. A mercury vapor discharge lamp comprising an effective amount of a silver salt, a gold salt or combination thereof.

[c2] 2. The mercury vapor discharge lamp of claim 1, wherein said silver salt comprises silver carbonate, silver halide, silver oxide, silver sulfide, silver acetate, or combinations thereof.

[c3] 3. The mercury vapor discharge lamp of claim 2, wherein said silver salt is silver carbonate.

[c4] 4. The mercury vapor discharge lamp of claim 1, wherein said gold salt comprises gold carbonate, gold halide, gold oxide, gold sulfide, gold acetate, or combinations thereof.

[c5] 5. The mercury vapor discharge lamp of claim 1, wherein said silver salt, gold salt, or combination thereof is present in a range between about 0.1 milligrams and about 10 grams per lamp.

[c6] 6. The mercury vapor discharge lamp of claim 5, wherein said silver salt, gold salt, or combination thereof is present in a range between about 10 milligrams and about 30 milligrams per lamp.

[c7] 7. The mercury vapor discharge lamp of claim 1, wherein said silver salt, gold salt, or combination thereof substantially prevents the interaction of elemental mercury with ferric and cupric compounds which oxidize elemental mercury to a soluble form.

[c8] 8. A mercury vapor discharge lamp comprising an amount of silver carbonate in a range between about 10 milligrams and about 30 milligrams per lamp to substantially prevent the interaction of elemental mercury with ferric and cupric compounds which oxidize elemental mercury to a soluble form.

[c9] 9. A method for preventing the formation of leachable mercury compounds in mercury vapor discharge lamps comprising providing in the lamp structure an effective amount of a silver salt, gold salt, or combination thereof.

[c10] 10. The method of claim 9, wherein said silver salt comprises silver carbonate, silver chloride, silver oxide, silver sulfide, silver acetate, or combinations thereof.

[c11] 11. The method of claim 10, wherein said silver salt comprises silver carbonate.

[c12] 12. The method of claim 9, wherein said gold salt comprises gold carbonate, gold halide, gold oxide, gold sulfide, gold acetate, or combinations thereof.

[c13] 13. The method of claim 9, wherein said silver salt, gold salt, or combination thereof is present in a range between about 0.1 milligrams and about 10 grams per lamp.

[c14] 14. The method of claim 13, wherein said silver salt, gold salt, or combination thereof is present in a range between about 10 milligrams and about 30 milligrams per lamp.

[c15] 15. The method of claim 9, wherein said silver salt, gold salt, or combination thereof substantially prevents the interaction of elemental mercury with ferric and cupric compounds which oxidize elemental mercury to a soluble form.

[c16] 16. A method for preventing the formation of leachable mercury compounds in mercury vapor discharge lamps comprising providing an amount of silver carbonate in a range between about 10 milligrams and about 30 milligrams per lamp to substantially prevent the formation of ferric and cupric compounds which oxidize elemental mercury to a soluble form.